

Researcher Hands-On Training in the Digital Humanities: An Austrian Case Study

Tanja Wissik

Austrian Centre for Digital Humanities
Austrian Academy of Sciences, Austria

`tanja.wissik@oeaw.ac.at`

Claudia Resch

Austrian Centre for Digital Humanities
Austrian Academy of Sciences, Austria

`claudia.resch@oeaw.ac.at`

Abstract

In this paper we discuss hands-on training in the Digital Humanities based on an Austrian case study. Herein we introduce a seasonal initiative, namely the “ACDH Tool Galleries”, organized by the Austrian Centre for Digital Humanities (ACDH) of the Austrian Academy of Sciences that allows developers and professionals to provide education and practical training in tools designed for Digital Humanities users. Furthermore we present current survey data collected among the participants of this training courses.

1 Introduction

Researcher training can play an important role in increasing the adaptation of computational tools and digital methods by researchers in the humanities since not all tools are equally adopted by researchers who would benefit most from them as stated by Kemman and Kleppe (2015).

In this paper we explore the potential of researcher training to spread information on these tools to potential users based on an Austrian case study. First we describe the DH teaching and training landscape in Austria and then we present a researcher hands-on training series and discuss the survey data collected among the participants of the training initiative.

2 Researcher training in the Digital Humanities

Digital Humanities is a fairly new field of research and one aspect of fostering this field, according to Sahle (2013) is the teaching of it at different levels: from BA, MA and PhD courses to summer schools. But there is a disparity in the development of DH training in every country. For example in Austria the first professorships for DH were appointed in 2016 and DH curricula are still in the development phase¹. Summer schools and workshops are common formats of conveying skills in digital humanities (Rehbein and Fritze, 2012), an example of which is the international *Digital Humanities Trainings Network*, where different summer school organizers are collaborating with each other (DH Training Network, 2016). Summer schools and workshops are not only useful when there is a lack of university level courses, but they also can address a diversified target audience than university courses such as researchers already in the middle of their career who are now confronted with new technologies and ways to carry out their research. Given the tight time schedule of researchers, one-or-two-day workshops might be ideal and do not require a long-term commitment as a typical master course in DH would. In the following section, we present a hands-on training event series as an Austrian case study. We use the term “series” because it is not a unique event and we use “hands-on” in order to pay tribute to the fact that hands-on application of digital methods and skills play an important role in DH.

3 ACDH Tool Gallery – an Austrian case study

The idea of the ACDH Tool Galleries was to combine short lectures in the morning with hands-on training in the afternoon to allow developers and professionals to provide education and practical training in tools designed for DH users (Wissik and Resch, 2016). In the afternoon participants take part in a hands-on training session, where the experts lead the group step-by-step through the tools. Although one day is not sufficient to master the use of such tools or services, participants at least can take the

opportunity to get an overview of the possibilities and can become familiar with the potential benefits of using such exemplary tools or services in their own field of research.

As the institute is often facing very basic questions regarding the use of different tools, the training events offer a good opportunity to connect tool developers and DH users, and to start discussions about possible applications in various areas. The hands-on of this training is particularly essential, as it gives the attendees the chance to immediately consult with the tool experts if they encounter a problem during the workshop, which guarantees that participants have a safe and guided start when exploring new tools and services. Furthermore, the practical experience helps participants to evaluate the features and abilities of distinct tools, but also to become aware of difficulties or limitations.

3.1 Advertising efforts

By offering these training events three times per year, the ACDH hopes to ensure a certain continuity of these trainings. It originally was meant for employees of the institution, but the audience was expanded as the recipients of the mailings were free to forward and share the announcements. The advertisements of training events were all designed in a similar manner, always provided with a recognizable logo. Additionally the dates were promoted on the academy's calendar of events and disseminated via different mailing lists and Twitter. Each event was promoted and post-processed on the institute's website. Due to organizational issues the number of places was limited and participants were asked to fill out a registration form. To emphasize the educational character of the format the ACDH also offered an official confirmation of attendance for those who wished to show it as a course of education and training. So far, no ECTS credits have been assigned, but this might be discussed in the future.

3.2 ACDH Tool Gallery 1.2 on (basic) linguistic annotation

The ACDH Tool Gallery 1.2, for instance, had a focus on (basic) linguistic annotation and was held for both linguists and professionals from all text-based disciplines. The introduction given by Ulrich Heid (University of Hildesheim) introduced the audience to the relevance of linguistic annotation and was followed by two short project contributions demonstrating possibilities and challenges of automatic annotation using examples namely from the historical language resource *Austrian Baroque Corpus* <https://acdh.oeaw.ac.at/abacus/>, which is part of the "CLARIN Centre Vienna" and its *Language Resource Portal*, and the huge collection *Austrian Media Corpus* <http://www.oeaw.ac.at/acdh/de/amc> covering newspapers, magazines, press releases, transcribed television interviews, news stories, etc. of the past three decades.

In the preparation of the event we chose *Weblicht – Web-Based Linguistic Chaining Tool*, (Hinrichs et al. 2010), well known among linguists, to be the most suitable research environment for testing the automatic annotation of texts. Marie Hinrichs and Claus Zinn (University of Tübingen) introduced the fully-functional processing chain with linguistic tools such as tokenizers, part of speech taggers, parsers etc. and showed how these services can be customized and combined by the user. The event was an occasion for those from other text-based disciplines to benefit from these services of automatic basic linguistic annotations. The idea that participants should bring their own texts to annotate them and visualize results in an appropriate way was set into practice under the guidance of the experts and made the hands-on session quite lively. In a last step the institute presented its recently developed *TokenEditor* (<http://www.oeaw.ac.at/acdh/de/tokenEditor>), a web application for manual annotation (or manual review of automatic annotations) of texts.

4 Survey data

The survey data is based on 119 questionnaires collected anonymously from registered participants of four ACDH Tool Galleries which were handed out on site and were collected at the end. The questionnaires are divided into three sections: one that varies according to the topic of the given training event, a second concerning the specific format of the training event, and a third on basic personal data of the participants (e.g. age, occupation). In the following section we give an overview of the general results of this survey and discuss as an example the survey results of the content section of one training

event, namely “ACDH Tool Gallery 1.2 on (basic) linguistic annotation”. We have chosen this specific training event to show the relation and synergies between the training events and CLARIN.

4.1 General analysis

Since the ACDH Tool Gallery was primarily designed as an in-house training, more than half of the 231 registered participants came from the Austrian Academy of Sciences, the other 49% come from outside the institution: 19% came from the University of Vienna, and 30% from other universities. Given that the training events are part of a series of events taking place three times a year, it is also useful to look at the numbers of frequent participants. From the 231 registered participants 26% registered for more than one event; 74% of the participants participated once.

The age distribution of the 119 survey respondents was as follows: 63% of participants were between the ages of 20-40, 33% were between 40-60 and 4% were over 60 years old. This shows that academics of all career stages attended the training event.

One issue of the questionnaire was how useful the participants found the combination of lecture and hands-on session in one training event. Of the 119 respondents, 90 fully agreed and 27 respondents generally agreed that the combination is useful; only one participant found it not useful and one person did not specify (see figure 1).

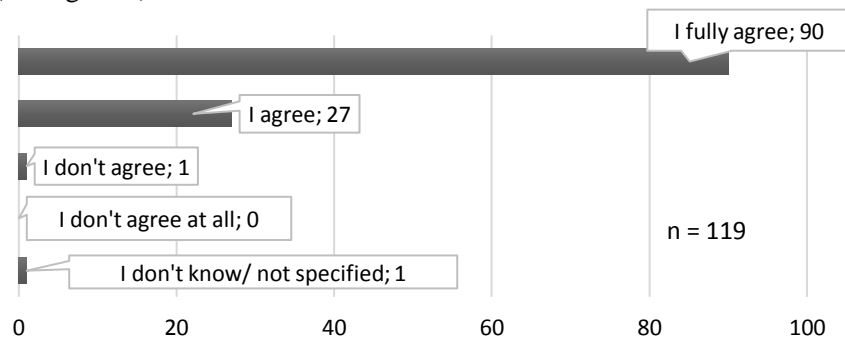


Figure 1: Usefulness of combined lecture & hands-on training

4.2 Specific analysis from ACDH Tool Gallery 1.2 on (basic) linguistic annotation

This specific training event focused on tools for the support of text annotation, especially linguistic annotation. De Jong et al. (2011) observed that “Humanities researchers can hardly be indifferent to the promise of innovative tools for the support of content exploration and content annotation. Both are key elements in their daily research practice and as such can be considered the alpha and omega of their analytical and comparative work”. Also in our case most of the participants were researchers from humanities, namely from History, History of Art and Musicology, Indology, Literary Studies, Slavic Studies and English Studies but we also had some computer scientists. The experience of the participants with digital tools and methods for their research were as follows: 77% already used digital tools and methods, 23% were interested in using them in the future, 45% of the respondents had already used (linguistic) annotation tools, and 55% had no prior experience with them. The percentage of respondents using digital methods according to age can be seen in figure 2.

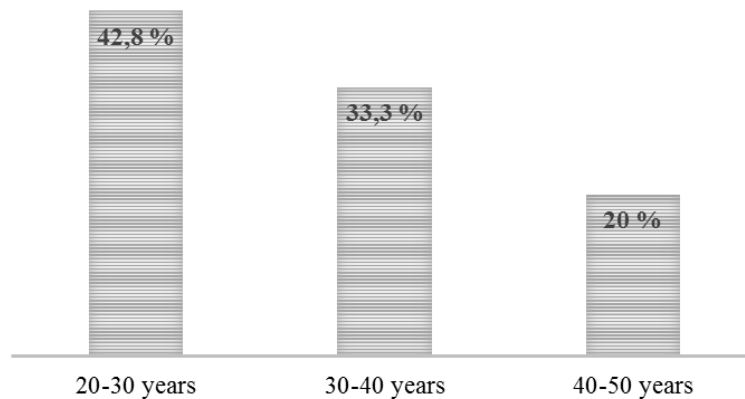


Figure 2: Percentage of respondents from ACDH Tool Gallery 1.2 using digital methods according to age groups

Of those with prior experience, several respondents mentioned *TreeTagger*, but none had any prior experience with *Weblicht*. Thus, this event was a good opportunity to make the *Weblicht* application more known in Austria outside the CLARIN community especially among historians and literary scholars.

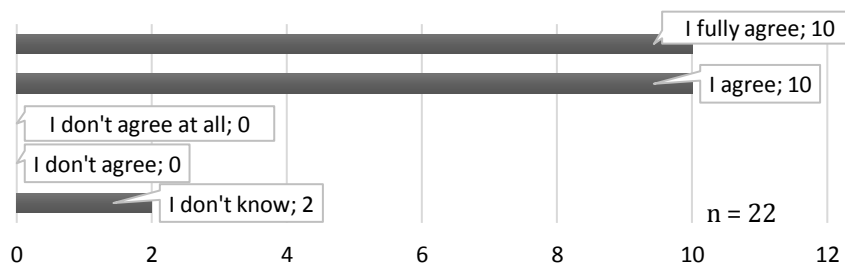


Figure 3: Use of linguistic annotations in further research

Despite the lack of prior familiarity with (linguistic) annotation tools at the beginning of the training event (roughly half of the participants), nearly all of them (20 out of 22), agreed or fully agreed that they would be interested in linguistically annotating their research material in the future (see figure 3).

The linguistic annotation is often the starting point for further annotation or processing of the texts, it facilitates the information extraction and enables the calculation of frequencies and distributions. For example, when studying historical correspondences, changing power structure might also be observed through different forms of addresses. In linguistic annotated text, address patterns can be searched systematically (e.g. adjective noun combinations) and their frequencies and variations over time can be measured.

5 Conclusion

In this paper we have presented the ACDH Tool Galleries, a new research training event series for DH. As the survey results show, the offer of the training event series has been very well received, and shows the active demand of such training events for researchers in the humanities at all career stages. Moreover, the training event can also be used for further dissemination of the tools and resources developed by research infrastructure consortia such as CLARIN in accordance with the User Engagement Handbook (Wynne 2015a) and in addition to the efforts made by the CLARIN user involvement group (Wynne 2015). One of our targets for the future is to apply our experiences to a wider European context and to share our knowledge with other CLARIN members who intend to offer similar courses. To facilitate this exchange we plan to prepare a concluding report based on our

experiences. At the same time we consider new approaches and strategies for conveying particular elements of the courses, for instance through short video introductions or webinars.

In order to make training events such as the ACDH Tool Galleries successful and effective, a careful and anticipative organization is needed. We agree with Rehbein and Fritze (2012) that the preparatory effort is higher than in “traditional” seminars and the technical set up takes longer. Furthermore, we find it very important to have interaction between persons from different disciplines. For the training event series it is essential to have ICT experts and researchers who have already applied the tools in their research together with researchers who are not familiar with the tools presented yet. This is in line with the idea that “[h]umanities scholars, and ICT-developers and students should all learn about the principles, challenges and biases of each other’s discipline” (de Jong et al., 2011).

References

- DH Training Network (2016) http://www.culingtec.uni-leipzig.de/ESU_C_T/node/409 (20.06.2016)
- Erhard Hinrichs, Marie Hinrichs, Thomas Zastrow. 2010. WebLicht: Web-based LRT services for German. *Proceedings of the ACL 2010 System Demonstrations*, pp. 25–29, Uppsala, Sweden, 13 July 2010. <http://www.aclweb.org/anthology/P10-4005> (21.06.2016)
- Francisca de Jong, Roeland Ordelman and Stef Scagliola. 2011. *Audio-visual Collections and the User Needs of Scholars in the Humanities: a Case for Co-Development*. *Proceedings of the 2nd Conference on Supporting Digital Humanities (SDH 2011)*, Denmark. Centre for Language Technology, Copenhagen.
- Max Kemmer and Martijn Kleppe. 2015. User Required? On the Value of User Research in the Digital Humanities. In: Jan Odijk (ed). *Selected Papers from the CLARIN 2014 Conference*, October 24-25, 2014, Soesterberg, The Netherlands, 63-74.
- Nora McGregor, Mia Ridge, Stella Wisdom and Aquiles Alencar-Brayner. (2016). The Digital Scholarship Training Programme at British Library: Concluding Report & Future Developments. In *Digital Humanities 2016: Conference Abstracts*. Jagiellonian University & Pedagogical University, Kraków, 623-625. <http://dh2016.adho.org/abstracts/178>
- Malte Rehbein and Christiane Fritze. 2012. Hands-On Training Digital Humanities: A Didactic Analysis of a Summer School on Digital Editing. In: Brett D. Hirsch (ed.). *Digital Humanities Pedagogy: Practices, Principles and Politics*, 47-78.
- Claudia Resch, Ulrike Czeitschner. 2015. ABaC:us – Austrian Baroque Corpus. <https://acdh.oeaw.ac.at/abacus/>
- Darío Rodríguez, Rodolfo Bertone, Ramón García-Martínez. 2010. Collaborative Research Training Based on Virtual Spaces. *IFIP Advances in Information and Communication Technology*, Vol. 324: 344-353.
- Patrick Sahle. 2013. “DH Studieren! Auf dem Weg zu einem Kern- und Referenzcurriculum der Digital Humanities”. *DARIAH-DE Working Papers Nr. 1*. Göttingen: DARIAH-DE, 2013. URN: urn:nbn:de:gbv:7-dariah-2013-1-5.
- Tanja Wissik and Claudia Resch. 2016. Digitale Tools und Methoden für die geisteswissenschaftliche Forschung praxisnah erklärt: Ein neues Format im Test. In: *Digital Humanities 2016: Conference Abstracts*., Jagiellonian University & Pedagogical University, Kraków, 711-713. <http://dh2016.adho.org/abstracts/87>
- Martin Wynne. 2015. User Involvement. Presentation at the Clarin Annual Conference 2015. <https://www.clarin.eu/sites/default/files/20151016-CAC-04-Wynne-User-Involvement-CAC2015-05.pdf>
- Martin Wynne. 2015a. User Engagement Handbook. Version 2.1. <https://office.clarin.eu/v/CE-2015-0590-UserInvolvementHandbook-v2.1.pdf>